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From: Betenson, Matthew Sent: 2017-11-06T17:14:43-05:00

Importance: Normal Subject: HITR Road 2

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Background Board.pdf

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#### **Matt Betenson**

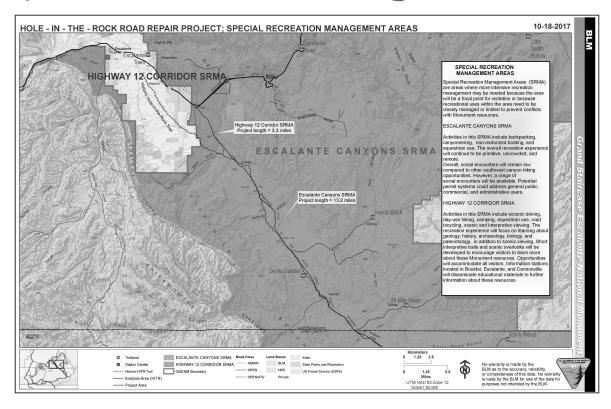
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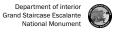




## Special Recreation Management Areas







## Environmental Resources for Analysis



Devil's Garden, one of the many natural resources along the road.





Native American rock art.

The Hole in the Rock Road closely follows the route of the 1879 Hole in the Rock trek, an epic journey in which members of The Church of Jesus Christ of Latter day Saints (LDS), also known as Mormons, established a more direct route across the Colorado River to the southeastern corner of Utah to settle at Fort Bluff along the San Juan River.

This journey is noted in the GSENM Proclamation, "The monument has a long and dignified human history: it is a place where one can see how nature shapes human endeavors in the American West... Early Mormon pioneers left many historic objects....and built and traversed the renowned Hole in the Rock Trail as party of their epic colonization efforts."

The project's effect on many resources will be analyzed including vegetation, wildlife, soil, recreation, wilderness character, cultural resources and others.



Pink prickly pear flower.



Indian paintbrush.



The project includes analysis of impacts to the ecosystem. This includes soils, wildlife, threatened and endangered species, vegetation and water.



An example of an ephemeral wash along the road

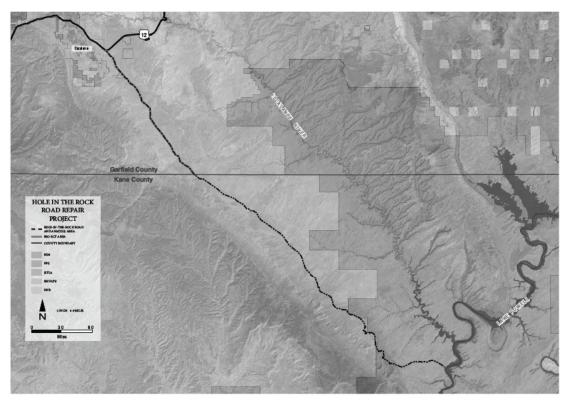


Greater short-horned lizard.



## **Project Corridor**





- The proposed project will be in Garfield County only.
- A total of 23 culverted washes are located along Hole-in-the-Rock Road in Garfield County.
- Of the 23 culverted washes, 16 will be repaired, either with new culverts or modifications to existing culverts. Alvey Wash and Twentymile Wash have designs pending for new pipe culverts, pipe arch, or bridge structures to span the wash.

### Background



For over twenty years, Hole-in-the-Rock Road (HITRR) has been maintained by continuously using heavy equipment to flatten washboarding, construct wing ditches, repair muddy areas, and utilize spot gravelling. The result is a deteriorated road condition which continues to widen and entrench, causing increased erosion on and around the road. This creates impassable muddy areas.

This project is to restore and repair the HITRR as a natural surface road that will improve driving safety and visitor experience, provide for better drainage, require less maintenance, and protect resources along the road.

- The Bureau of Land Management (BLM), working with Garfield County, proposes in prove the shape of the road from Highway 12 to the Kane County boundary line
- · Restoring a grown and ditch road profile and providing improved drainage.
- Restoring the road to a consistent width of approximately 26 feet.

  Rehabilitating and revegetating all reclaimed areas.
- Grading adjacent slopes, which may by required to build a crown profile where entrenched.
- Evaluating culvert systems at ephemeral wash crossings for peak flow flood capacity.



Water collected at the side of the roadway



Alvey Wash Large culverts fill with sediment during storm event

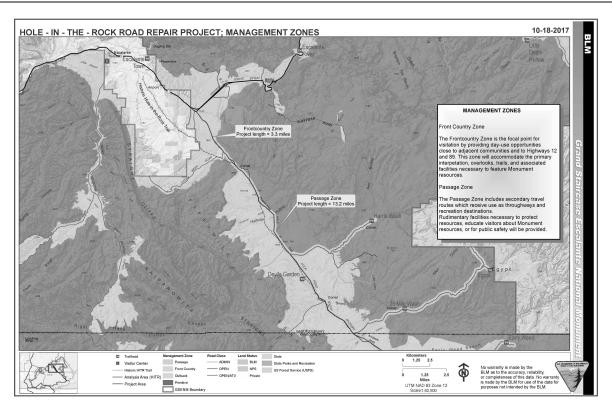


Stretch of muddy road where visitors have driven off the roadway





## Management Zones







# Road Design Rendering

#### CONCEPTUAL RENDERING OF REPAIRS



BEFORE



BEFORE



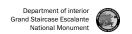
AFTER



AFTER

- In locations where the road is deeply entrenched, adjacent slopes may need to be contoured and revegetated.
- Over time, vegetation will naturally move into the disturbed areas along the road.





### Maintenance on the Road



The proposed project would repair the natural surface road, with gravel placed in problem areas. This grading and drainage project would result in a crown and ditch road bed that will help the road shed water and return it to a consistent width.

- Hole-in-the-Rock Road is currently graded approximately 20 times each summer, creating additional costs to Garfield County. Regular grading also causes degradation of the road base due to constant manipulation, which creates hazardous driving conditions for visitors.
- Heavy equipment will only be staged in previously disturbed areas.